

REMARKS

Rejections under 35 USC §102(b)

Claim 5 was rejected under 35 USC §102(b) as being anticipated by Enomoto et al. (U.S. Patent No. 5,589,255).

Claim 5 has been cancelled hereby. Thus the rejection has become moot.

Rejections under 35 USC §103(a)

Claims 1-4 were rejected under 35 USC §103(a) as being obvious over Gaku et al. (U.S. Patent No. 4,396,679) in view of Enomoto et al. (U.S. Patent No. 5,589,255), and further in view of Applicant's admitted prior art.

Applicants respectfully traverse this rejection.

The Examiner alleged as follows:

8. Regarding claims 1-4, Gaku et al. (US'679) disclose a method of forming a substrate for printed circuits formed by electroless plating (cot. 7, lines 26-29). To ensure proper adhesion between a plastic substrate and a thin metal film formed by electro deposition, **the curable composition film contains a compound capable of coordinating to a metal** (e.g., imidazoles or triazines) (col. 3, lines 3-12; col. 5, lines 40-52). The curable composition film, which contains an insulating polymer and a curing agent (col. 6, lines 9-11) and which can be applied by varnish of insulating polymer dissolved in a solvent (col. 6, lines 32-37; col. 7, lines 35-41), is subsequently cured, thereby forming an electrical insulating layer (col. 5, lines 40-44; col. 6, lines 60-61). A metal thin-film layer is formed on the surface of the electrical insulating layer by electroless metal deposition (col. 7, lines 22-26). The metal thin-film layer is heat treated after it is formed (col. 7, lines 65-68).

US'679 fails to teach forming the metallic thin-film layer of an ethylenediaminetetraacetate-copper ("EDTA-Cu") complex. Enomoto et al. (US'255) teach electroless copper plating using EDTA-Cu complex on

the surface of an insulating layer (Table I; col. 9, lines 21-37). It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the invention of US'679 by using EDTA-Cu complex for the step of forming a metal thin-film layer on the surface of the electrical insulating layer, because US'255 teaches that such a method is advantageous for electroless plating in producing a multilayer printed circuit board (col. 9, lines 39-42).

(Office Action, page 4, item 8). Claim 1 recites as follows:

1. A method for forming a multilayer circuit structure, which comprises steps of:
 - forming a curable composition film that contains an insulating polymer and a curing agent, as the outermost layer of an inner layer board; then
 - bringing a compound that has a structure capable of coordinating to a metal, into contact with the surface of the curable composition film; then
 - curing the curable composition film to form an electrical insulating layer; then
 - hydrophilicating the surface of the resulting electrical insulating layer; then
 - forming a metal thin-film layer of an ethylenediaminetetraacetate-copper complex on the surface of the electrical insulating layer; and then
 - forming a conductor circuit layer that contains the metal thin-film layer.

Thus, claim 1 requires the recited steps in the recited order. The Examiner's allegation is not based on the claim recitation of claim 1. It is not clear which steps are disclosed in the cited references and how and why the teachings of the cited references are combined or modified to arrive at the present invention as recited in claim 1.

Moreover, the Examiner noted that, according to US'679, the curable composition film contains a compound capable of coordinating to a metal. If so, US'679 does not require the step of "bringing a compound that has a structure capable of coordinating to a metal, into contact with

the surface of the curable composition film.”

Thus, the Examiner has not shown the reason why a person of ordinary skill in the art would arrive at the claimed invention combining or modifying teachings of the cited references.

Therefore, the Examiner has not established a prima facie case of obviousness.

Double Patenting

Claims 1-4 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 11, 15, 18 and 22-24 of copending Application No. 10/487,997.

Accordingly a terminal disclaimer is filed herewith such that the patent which issues from this application is enforceable for the same period of time as the cited patent and that the patent is enforceable only for the period that the patent is commonly owned with the patent which formed the basis for the rejection.

Thus, the double patenting rejection has been overcome.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

Application No.: 10/514,421
Art Unit: 4172

Amendment under 37 C.F.R. §1.111
Attorney Docket No.: 042978

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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Attachment: Terminal Disclaimer